

# United States Patent and Trademark Office

un

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov.

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,471	09/30/2003	Martin Antoni	90706	. 5544
24628 WELSH & KA	7590 07/27/200 TZ LTD	7	EXAM	INER
120 S RIVERS	SIDE PLAZA		CHERRY, E	EUNCHA P
22ND FLOOR CHICAGO, IL			ART UNIT	PAPER NUMBER
•			2872	
		••		
			MAIL DATE	DELIVERY MODE
			07/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/675,471	ANTONI ET AL.			
Office Action Summary	Examiner	Art Unit			
	EUNCHA P. CHERRY	2872			
The MAILING DATE of this communication appeared for Reply	ppears on the cover sheet with	the correspondence address			
A SHORTENED STATUTORY PERIOD FOR REP THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a re  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a rep ply within the statutory minimum of thirty (d will apply and will expire SIX (6) MONTHE, cause the application to become ABAI	ly be timely filed (30) days will be considered timely. IS from the mailing date of this communication. NDONED (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 02	May 2007.				
· · ·	is action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims		•			
4)⊠ Claim(s) <u>1-50</u> is/are pending in the applicatio	n.				
· · · · · · · · · · · · · · · · · · ·	4a) Of the above claim(s) is/are withdrawn from consideration.				
5) Claim(s) is/are allowed.					
6) Claim(s) 1-7 and 37-39 is/are rejected.					
7) Claim(s) <u>8-36 and 40-50</u> is/are objected to.					
8) Claim(s) are subject to restriction and	or election requirement.				
Application Papers					
9)☐ The specification is objected to by the Examir	ner.				
10)⊠ The drawing(s) filed on <u>30 September 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11) The oath or declaration is objected to by the E	Examiner. Note the attached (	Office Action or form PTO-152.			
Priority under 35 U.S.C. § 119	٠.				
12) ☑ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ☑ All b) ☐ Some * c) ☐ None of:					
<ul> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No. 09/950,186.</li> </ul>					
3. Copies of the certified copies of the priority documents have been received in this National Stage					
•	application from the International Bureau (PCT Rule 17.2(a)).				
* See the attached detailed Office action for a list		eceived.			
Attachment(s)					
1) Notice of References Cited (PTO-892)		mmary (PTO-413)			
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	-: □	Mail Date ormal Patent Application (PTO-152)			
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/06 Paper No(s)/Mail Date	6) Other:				

Application/Control Number: 10/675,471

Art Unit: 2872

#### DETAILED ACTION

### Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-7 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth (US Patent No. 4,333,446) in view of Laing et al (US Patent No. 3,806,209).

Regarding claims 1-7 and 38, Smyth discloses a focusing device (Figs. 1 and 2) for the radiation from a light source (sun), comprising a collector mirror (48) which is held by a mount (16) and which collects the light from the light source at its focus (see the shape of 48), in virtual or real terms, wherein said collector mirror can be adjusted or displaced in said mount via a bearing in such way that optical properties of the collector mirror remain at least approximately the same in the event of temperature changes (see column 2, lines 50-63). The bearing is designed in such way that said collector mirror

Application/Control Number: 10/675,471

Art Unit: 2872

can be displaced at least perpendicular to the optical axis in the region of its bearing (see Fig. 2). The mount is designed as a mounting ring in which said collector mirror with its bearing is held (see Fig. 2). A plurality of bearings are arranged, distributed over the circumference, in strengthening ribs of said mounting ring (see Fig. 2, 42). The bearings of the collector mirror are provided with elements, which permit movements of said collector mirror perpendicular an optical axis (see Fig. 2). The elements are designed as active adjusting units (inherent). The intended use recited in the preamble does not get patentable weight for claim 38. However, Smyth does not disclose automatically adjusted bearing that responses to thermal load. Laing et al discloses the automatically adjusted bearing that responses to thermal load (column 2, lines 3-11). It would have been obvious to one of ordinary skill in the art to use the bearing as taught by Laing et al for the purpose of obtaining radiation without any dissipation.

Regarding claims 37 and 39, Smyth in view of Laing et al discloses the claimed invention as set forth above except for the light source being plasma EUV. It would have been obvious to one of ordinary skill in the art to use the solar collector in a system where the light source is a plasma EUV, because

Application/Control Number: 10/675,471 Page 4

Art Unit: 2872

using the solar collector of Smyth will result in getting signal that can be controlled individually verse as one unit.

## Allowable Subject Matter

- 3. Claims 8-36 and 40-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 4. The following is a statement of reasons for the indication of allowable subject matter: claims are allowable at least for the reason that the prior art does not teach or suggest the annular shells that are hold jointly in bearings on a mount designed as a mounting ring (claims 8-36) and the shell collector is a plurality of annular shells arranged at a radial distance from one another (claims 40-50) as set forth in the claimed combination.

## Response to Arguments

5. Applicant's arguments with respect to claims have been considered but found not persuasive. Applicant argues the prior art does not adjust positions of the mirror. Applicant is reminded that the combined art satisfy this limitation as set forth in the rejection above. Therefore, it appears that the rejection is still deemed proper.

Application/Control Number: 10/675,471 Page 5

Art Unit: 2872

#### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EUNCHA P. CHERRY whose telephone number is 571-272-2310. The examiner.can normally be reached on M-F 6:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EUMCHA P. CHERRY Primary Examiner Art Unit 2872